

STRIDE: A NOVEL NEAR-PEER, SIMULATION-BASED APPROACH TO FOUNDATION YEAR 1 DOCTORS' TEACHING

Joe Gleeson¹, Hayley Boal¹, Reshad Khodabocus¹, Emma Jones¹;
¹The Mid Yorkshire Hospitals NHS Trust, Leeds, United Kingdom

10.54531/HRUN1375

Background: NHS Trusts must deliver 30 hours of teaching to Foundation Year 1 doctors (FY1s) per year [1]. Our Trust previously delivered weekly hour-long didactic teaching sessions. Feedback was poor, so a new approach was required. Our Trust employs nine FY3 and FY4 junior doctors as Clinical Fellows in Education and Simulation. It was felt that the team, having recently completed FY1 themselves, could develop a useful and enjoyable FY1 teaching program.

Activity: STRIDE – Simulation, Teaching, and Reflection for FY1 Development and Education – was developed and delivered by the Fellows. STRIDE involves six full teaching days throughout the year. Each day runs four times with a quarter of FY1s attending, to ensure reasonable class sizes. The team felt that simulation would be beneficial in teaching newly-qualified junior doctors. Simulation is an excellent way to help learners put theory into clinical practice [2], and it was felt that using carefully-designed scenarios would ensure FY1s felt the teaching was useful and relevant. Each STRIDE day therefore involves half a day of simulation using the Trusts' high-fidelity facilities, alongside half a day of teaching including practical skills, small group teaching, and reflective sessions. All scenarios are designed around clinical scenarios which are commonly faced by FY1s in their clinical practice, alongside a variety of human factors. The scenario is observed remotely by other FY1s and the Fellows. The Fellows lead post-scenario debriefings with emphasis on reflection and peer-to-peer discussion and learning.

Findings: Feedback has been excellent, with 100% of FY1s rating each session as 'good' or 'very good'. The usage of near-peer teachers, the post-simulation debriefings, and the relevance of scenarios to FY1s' clinical practice have been noted as factors contributing to this success. The benefits of near-peer teaching have been widely discussed in the literature, though often focus on junior doctors teaching medical students [3]. STRIDE demonstrates that teaching (including simulations) developed and delivered by junior doctors for more junior doctors can be relevant, useful, and enjoyable. Full-day teaching sessions seem to be preferable to shorter weekly teaching, allowing FY1s to focus on learning without worrying about work building up back on the wards. This approach also allows the usage of simulation, which would be difficult to deliver in a shorter session.

Conclusion: Full-day teaching sessions, delivered by near-peers, with heavy usage of simulation, can be a highly effective way to deliver FY1 core teaching.

REFERENCES

1. UK Foundation Programme. UK Foundation Programme Curriculum. London: UKFPO; 2021.
2. Okuda Y, Bryson E, DeMaria S, Jacobson L, Quinones J, Shen B, Levine AI. The Utility of Simulation in Medical Education: What Is the Evidence?. Mount Sinai Journal of Medicine: A Journal of Translational and Personalized Medicine. 2009;76(4):330–343.
3. Rees E, Quinn P, Davies B, Fotheringham V. How does peer teaching compare to faculty teaching? A systematic review and meta-analysis. Medical Teacher. 2015;38(8):829–837.

CAN A NOVEL BLENDED LEARNING RESOURCE IMPROVE THE SIMULATION EXPERIENCE FOR INTERNATIONAL MEDICAL GRADUATES WORKING IN THE UK? A SURVEY OF KENT SURREY SUSSEX TRAINEES IN ANAESTHESIA

Mohamed Gheith¹, Christopher Torrilla¹, Alexander Hall¹; ¹University Hospitals Sussex, St Richards Hospital, Chichester, United Kingdom

10.54531/DDKX7611

Background: With the increasing number of International Medical Graduates (IMGs) hired by the UK National Healthcare Service (NHS), a unification of training becomes essential. One of the main obstacles facing IMGs is insufficient simulation-based training [1]. In 2021, 19,977 doctors were registered to the General Medical Council (GMC). 10,009 of them studied medicine outside the United Kingdom (UK) [2]. Blended learning offers the opportunity for engagement and interaction to facilitate learning experiences [3].

Methods: We created and distributed a survey to Anaesthetic trainees in the 'Kent Surrey Sussex (KSS)' Deanery. We received a total of 76 responses, 49 (64.5%) UK graduates (UKGs) and 27 (35.5%) international graduates. The survey was designed to ascertain their medical training, simulation experience, and their perception of that simulation experience. We also included additional questions aimed specifically at IMGs to demonstrate the best way they could be supported to acquaint themselves with the simulation process further.

Findings: IMGs were less likely to have simulation training as an undergraduate (24% IMGs vs 96% UKGs), and 37% of IMGs had no simulation exposure before coming to the UK. IMGs were also exposed to fewer simulation sessions during their career when compared with UKGs. When asked how simulation can improve human factor variables, including teamworking, leadership, and managing stressful situations, both groups responded similarly. An exception was that IMGs were much more likely to 'strongly agree' that simulation improved their communication skills (41% vs 29%). IMGs were less likely to find the overall simulation experience 'excellent' (24% vs 51% in UKGs), suggesting more can be done to improve their perception of simulation (Table 1). Most IMGs (88.9%) believed they would benefit from blended learning. These included methods such as; an introductory video describing simulation (59%), pre-course materials (59%), manikin familiarisation (59%), a virtual tour (52%), and attending as an observer before simulation sessions (56%).

Conclusion: There is a clear discrepancy in simulation exposure and perception of simulation between IMGs and UKGs. We believe blended learning may be the solution to help bridge this gap. Our survey highlighted potential resources we can introduce, including introductory videos, additional learning materials, and attending simulation as an observer. We hope to incorporate some of these in the future within our Trust Simulation Department and, if successfully received, expand throughout the KSS deanery.

REFERENCES

1. Martinerie L, Rasoaherinomenjanahary F, Ronot M, Fournier P, Dousset B, Tesnière A, Mariette C, Gaujoux S, Gronnier C. Health care simulation in developing countries and low-resource situations. J Contin Educ Health Prof. 2018;38(3):205–212
2. Campbell D. NHS hiring more doctors from outside UK and EEA than inside for first time. The Guardian. 8 June 2022. <https://www.theguardian.com/society/2022/jun/08/nhs-hiring-more-doctors-from-outside-uk-and-eea-than-inside-for-first-time>. [Accessed on 29/09/2022]
3. Singh H. Building effective blended learning programs. Educational Technology. 2003; 43:51–54

Table 1: Comparison of UKGs versus IMGs simulation experience. As well as asking about how simulation improved communication skills, responders were asked the impact simulation had in improving other core skills including teamwork, leadership, and managing stressful situations with both groups responding similarly.

Category	UK trainees (n = 49)	International Trainees (n=27)
Job role	Trainee (82%) Non trainee (18%)	Trainee (22%) Non trainee (78%)
Level(s) at which underwent simulation	Undergraduate (96%) Postgraduate (98%)	Undergraduate (24%) Postgraduate (94%)
How many times have you done simulation?	1 – 5 times 0% 5– 10 times 22% 10 – 15 times 33% >15 times 45%	1 – 5 times 41% 5– 10 times 18% 10 – 15 times 18% >15 times 24%
Communication skills	Strongly agree 29% Agree 47% Neutral 16% Disagree 8% Strongly disagree 0%	Strongly agree 41% Agree 44% Neutral 11% Disagree 0% Strongly disagree 4%
Overall sim experience is:	Excellent (51%) Good (35%) Neutral (12%) Bad (2%)	Excellent (24%) Good (65%) Neutral (12%) Bad

ENHANCED SIMULATION-BASED MASTERY LEARNING FOR THE ATTAINMENT OF PROCEDURAL SKILLS COMPETENCE FOR ACUTE COMMON CARE STEM (ACCS) TRAINEES

Charlie Player¹; ¹Barnsley Hospital, Barnsley, United Kingdom

10.54531/AOFJ1916

Background: A new curriculum for Acute Common Care Stem (ACCS) trainees was introduced in 2021 and included a mandatory requirement to have specific practical assessments performed, known as Direct Observation of Procedural Skills (DOPS). These aimed to provide evidence of competence and enable progression through training. The curriculum change prompted the creation of a novel one-day skills-based course in order to ensure that all the ACCS trainees met the required level of competence. An enhanced simulation-based mastery learning method was used to ensure that trainees have the clinical knowledge to identify when future practical emergency skills are indicated and have the psychomotor skills necessary to perform these procedures safely and efficiently. This study was aimed at exploring the impact of a simulation-based mastery learning (SBML) [1] in a one-day procedural skills course.

Methods: New curriculum content was reviewed in order to establish the different practical skills required for the second year of ACCS training. Regional trainees were then sent an online survey to ask which specific procedures they would like included on a skills course. There were five procedures requested: chest drain insertion (Seldinger and open), aspiration of air, DC cardioversion, and external cardiac pacing. Meetings with the local training programme director and simulation lead assisted in the formation of the skills day. Faculty were formed by registrars and consultants in Emergency Medicine. Trainees aimed to reach a competence level that would mean they still need in hospital supervision for any future procedures. Eight ACCS trainees attended a one-day skills-based course in May 2022. The course was preceded by multiple online e-learning resources and videos. The SBML day consisted of a demonstration with deliberate practice followed by DOPS assessments using simulation and trainee-focused feedback. Anonymised pre- and post-course questionnaires were completed by all trainees containing questions surrounding their experience and confidence in performing these procedural skills.

Results: All trainees achieved the required level of competence needed at their stage in training. Each trainee stated that their confidence levels improved in performing all five procedures after attending the course (Figure 1).

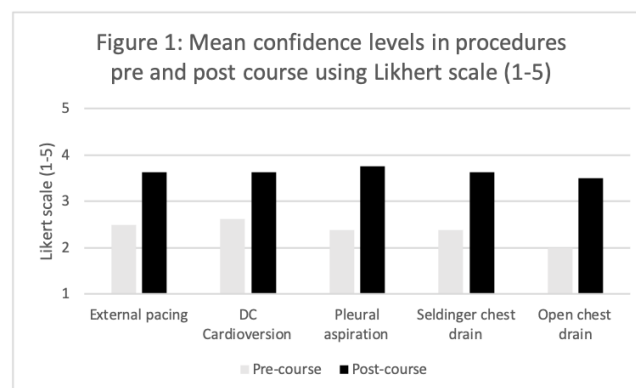


Figure 1: Mean confidence levels in procedures pre- and post-course using Likert scale (1–5)

Conclusion: An enhanced SBML method in a one-day course enabled efficient, standardised procedural skills practice and assessment for a group of ACCS trainees. Training, practice, and assessment in necessary curricular competences were achieved together while improving the level of confidence in trainees performing these procedures.

REFERENCE

1. Scahill E, Oliver N, Tallentire V, Edgar S, Tiernan J. An enhanced approach to simulation-based mastery learning: optimising the educational impact of a novel, National Postgraduate Medical Boot Camp. *Advances in Simulation*. 2021;6(1).

LIVESTREAMED CROSS-INSTITUTIONAL HYBRID SIMULATIONS ON HEALTHCARE INEQUALITY: A TIME, COST AND ENVIRONMENTALLY FRIENDLY OPPORTUNITY FOR LARGE GROUP LEARNING?

James Keitley¹, Simon Garland-Lo¹, Saad Azher¹, Tim Parr¹, Pam Nelmes², Rachel Pascoe², Blair Graham²; ¹Liverpool University Hospitals NHS Trust, Liverpool, United Kingdom; ²University of Plymouth, Plymouth, United Kingdom

10.54531/JHOU5935

Background: Students intercalating in BSc Urgent and Emergency Care/BSc Critical Care degrees undertake placements in 32 NHS Trusts across the UK. A collaborative simulation day was planned between the University and a geographically distant hospital, aiming to explore bias within healthcare. Inequality has been examined through simulation previously and recommendations exist on maximising simulation effectiveness [1].

Activity: A hybrid simulation day took place with 11 students present 'in-situ' and 49 remote students across the UK joining a livestream. High-definition cameras provided multi-angle simulation views plus a patient monitor with separate audio from ceiling-mounted boundary microphones. A webcam and cardioid microphone captured the debriefing. The free programme OBS Studio controlled the livestream as a single 'virtual camera', with test results overlaid as appropriate. Scenarios involved an atypical myocardial infarction, sickle cell crisis, and female genital mutilation/trauma in pregnancy.